# WORLD'S COLUMBIAN FAIR, CHICAGO 1893.

# CATALOGUE OF EXHIBITS

OF THE

# IMPERIAL RUSSIAN STATE PAPER MANUFACTORY.



ST.-PETERSBURG.

Printed at the Imperial State Paper Manufactory. 1893.



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# Imperial Russian State Paper Manufactory

144 Fontanka Quay, St.-Petersburg.

Was founded in 1818, reorganized in 1861, when the cost of building and equipment amounted to upwards of  $4^{1}/2$  mill. roubles.

It is worked on a commercial basis and executes all papers of value for government offices and private institutions.

Production by machine and manual labour.

Departments:

Paper mill production—about 750.000 kilos annually. Printing—output exceeds 260.000.000 sheets with an average of 3—4 printings per sheet.

Engraving, die-sinking.

Electro deposition—over 2500 kilos of electrotypes.

Analytical and testing—for investigating improvements, relating to the graphic arts and manufacture of paper; for testing productions of the establishment and for seeking means to ensure against forgery.

Engineering and building.

Gas works to feed 4770 burners, consuming  $7^{1/2}$  mill. cub. feet, and station for electric lighting, supplying 1000 lamps.

Prime movers: 25 steam boilers with 57 steam engines, having an aggregate of 1000 horse power; 6 gas motors with 66 h. p. and 1 locomobile of 50 h. p.

The number of employees of both sexes exceeds 3300, who receive, per annum, wages to the amount of . 1.181.000 Rbls.

Annual expenditure for materials . . 860.000 "

The clear annual profit is upwards of . 660.000 "

The sum, for orders fulfilled by the estab-

lishment annually, reaches approximately to 2.701.000,

One half of the clear profit is retained by the Treasury and the other is distributed in gratuities amongst the employees.

The average cost of each sheet is 0.903 cop. = 0.46 cent.

The manufactory has its own church, a school, a hospital, a spacious dining hall and a pension and widow and orphans fund.

# Specimens exhibited.

Water-marked paper made exclusively of hemp and rags: hand-made in sheets,

machine " " "

" " " continuous web.

Printing: examples of papers of value for government and private establishments, bank-notes, certificates, inland revenue banderoles, postage and other stamps, share-certificates, bonds, drafts, cheques etc.

Prints produced in various colours, at one impression, with any figured pattern, from a plain ground-tint electroblock.

Engraving: by hand on metal and box-wood, pantographic, guilloche, transferring, zincographic, heliographic etc. original and matrices.

Electrotyping: iron and copper electrotypes.

Types: punches, matrices and metal type.

Engraving and etchings executed by artists of the establishment. Examples of work executed by scholars of the establishment: drawings and engravings.

In order to elucidate more fully the attainments of the establishment, the auxiliary work of the analytical and testing department is exhibited: photo-micrographs of various fibres used in the manufacture of paper, to determine the effect of beating upon their properties and strength.

Photographs of coloured inks by white light and also through various coloured media.

Reproductions of drawings by wood-engraving, helioengraving, chromolithography, fac-simile print and collotype in three primary colours, photographic and collotype printing, imitations of niello work (incrustations).

Results of experiments in the electro deposition of iron and copper on the inner surface of hollow moulds, for the purpose of avoiding seams or joints.

# RUSSIA.

# IMPERIAL STATE PAPER MANUFACTORY.

ST.-PETERSBURG, FONTANKA I44.

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Everything exhibited was made on the premises from designs and drawings by artists of the Establishment — textile materials for decoration excepted.

Exhibition pavilion in Circassian nut-wood, relieved with panels in polished platane-wood together with the show-cases and frames, designed by N. Nabokoff, executed in the cabinet making department of the Establishment.

Birds eye view of the Imperial State Paper Manufactory, watercolour drawing by A. Baldinger.

Series of photographs of several of the departments and workshops.

# Screen A.

#### Copper and iron electrotypes:

- 1. Alexander of Macedonia: bas-relief, original in marble in the Imperial Hermitage at St.-Petersburg.
- 2. Alexander I, Emperor of Russia: bas-relief, original in wax by Laveretzky, collection of the Establishment.
- 3. Helmet: Italian XVI century, fac-simile, original in the Imperial Hermitage.
- 4. "Medusa": bas-relief, original in marble at Rome, palace Aldobrandini.
- 5. Helmet: of Charles Quint, with representations of "David and the giant Goliath" and "Judith with the head of Holofernes", fac-simile, original in the Imperial Hermitage.
- 6. Nicholas I, Emperor of Russia: bas-relief, original in wax by Laveretzky, collection of the Establishment.
- 7. "Olympia": bas-relief, original in marble in the Imperial Hermitage.

#### Frame I.

- Collotypes { by Bouillard, } from the collection of line } ...
   Bouillard, } from the collection of the Imperial Hermitage.
- 4. Photo-zincograph of a line engraving by St. Fassard, in the Imperial Hermitage.
- 5. Chromo-collotype, from a watercolour drawing by A. Bobroff.
- 6. Photo-zincograph of a line engraving by St. Fassard, in the Imperial Hermitage.
- 7. P. Valoueff, Minister of State: Collotype of a penand-ink drawing by Mary Etlinger.
- 8. Collotype of a line engraving by Reissler, in the Imperial Hermitage.

- 9. Photolithographic print of lace, from the work on "Russian lace" by S. Davidoff.
- 10. Collotype of a line engraving by St. Fassard, in the Imperial Hermitage.

#### Show-case I.

Helio-engravings: Emperors of Russia:
Paul I, Alexander I, Nicholas I and Alexander II,
from engravings in the collection of Count I. Tolstoi.

#### Frame II.

Helio-engravings, from originals:

- 1. by E. Chemesoff.
- 2. " P. Soutman.
- 3. , R. White.
- 4. "Bervic.
- 5. " G. Edelingh.
- 6. " C. Vyscher.
- 7. " E. Chemesoff.
- 8. " M. Mikeshine.
- 9. "M. Schreyer.

#### Show-case II.

Containing specimens of Helio-electro-incrustations "Niello Work", from various wood engravings and designs.

#### Frame III.

- 1. Title-page in Chromo-lithography to "Ancient Hebrew Manuscripts", in the Imperial Public Library, composed by I. Ropett.
- 2. Fac-simile in Chromo-lithography of "Ancient Hebrew Manuscripts", in the Imperial Public Library.

- 3. Collotype from an engraving by Charpentier.
- 4. Bouillard.
- 5. of a title-page.
- 6. from a watercolour drawing by A. Bobroff.
- 7. "
- 8. of a study from still life.

#### Show-case III.

Collotypes: Title-page and several sheets of the numismatic works, issued by H. I. H. the Grand Duke George Michailovitch.

## Screen B.

#### Copper and iron electrotypes:

- 1. Copernicus: bas-relief in wax by Krynsky, collection of the Establishment.
- 2. Shield with caryatides: origin unknown.
- 3. Helmet: Italian XVI century, fac-simile, original in the Imperial Hermitage.
- 4. Shield: origin unknown.
- 5. Jerome Savonarolla: bas-relief in wax by Krynsky, collection of the Establishment.

#### Frame IV.

Inland revenue, Municipal and Police stamps.

Bank-notes at present in circulation:

1a & 1b —	1	Rouble	Bank-note-	– front	and	back
2a & 2b —	3	,,	••,	19		,,
3a & 3b —	5	11	,,	"		"
4a & 4b —	10	,,	••	13		,,
5a & 5b —	25	,,	"	"		,,
6a & 6b — 1	100	"	11	,,		"

#### Show-case IV.

- 1. Iron electrotype of Inland revenue Banderole for lucifer matches (unused).
- 2. Proof-print from N = 1.
- 3. Copper plate of Imperial Eagle engraved on the Relief machine, from an electrotype taken from a model in wax.
- 4. The 5.000.001 impression, from electrotype N 5.
- 5. Iron electrotype after 5.000.000 impressions were struck off.

#### Frame V.

- 1. Various Inland revenue Banderoles.
- 2. 3. Proofs printed on the Steam copperplate printing
  4. machine, system Ravasse.

#### Show-case V.

- 1. Plate engraved on the Guilloche machine.
- 2. Electrotype of plate transformed into a letterpress printing block.
- 3. Copperplate engraved by various processes of hand and mechanical engraving and etching.
- 4. Heading for letterpress printing.
- 5. for copperplate printing.
- 6. Title-vignette engraved by hand.
- executed on the Pantographic 7. Guilloche engraving machines.

#### Frame VI.

1. Postage stamps, post cards etc. of various denominations.

- 2. Multiple colour-printing: any design or combination of colours at one single impression (steam letter-press printing machine invented by I. Orloff, engineer of the Establishment).
- 3. Prints in one colour, from the same electrotypes from which the above were struck off.

#### Show-case VI.

- 1. Portrait of H. I. M. Alexander III, Emperor of all the Russias: electrotype from a model in wax, for watermark in paper.
- 2. Portrait of the Empress of Russia, Catherine II: electrotype from a model in wax, for watermark in paper.
- 3. Portrait of the Emperor of Russia, Peter the Great: electrotype from a model in wax, for watermark in paper.
- 4. Specimens of die-sinking for wafers and seals.
- 5. Imperial Eagle, electrotype from a model in wax, for use on the Relief machine, also for watermark in paper.

# Screen C.

#### Copper and iron electrotypes:

- 1. Bourghinotte ascribed to Charles Quint, Milanese work, fac-simile, original in the Imperial Hermitage.
- 2. Sword: Italian XVI century, original in the Imperial Hermitage.
- 3. Sword, from the collection of Count Stroganoff.
- 4. Lance: origin unknown.

## Screen D.

#### Copper and iron electrotypes:

- 1. "Homage to art": original by Moine, from the collection in the Pitti palace at Florence.
- 2. A Jew's Head: study by Antakolsky, iron electrotype without seams.
- 3. Our Saviour: from a bas-relief in bronze by Lichtenberg.
- 4. Shield of the Grand Duke of Tuscany Cosmos I with figures of Mars, Prudentia, Fortitudo, Fama and Invidia, fac-simile, original in the Imperial Hermitage.

#### Frame VII.

- 1. Impressions showing various modes of engraving
- 2. and details of execution for Bonds, Share-certifi-
- 3. cates etc.

# Screen E.

#### Copper and iron electrotypes:

- 1. Shield: German XVI century, executed by a scholar of Albert Durer, original in the Imperial Hermitage.
- 2. Shield: origin unknown.
- 3. Shield: origin unknown, representing the gods of Olympia.

#### Frame VIII.

Scholars' work, executed in the copperplate engraving class of the Establishment: crayon and penand-ink drawings.

#### Show-case VIII.

Scholars work, executed in the class for copperplate engraving: engravings on steel and copper.

Bust of Catherine II, Empress of Russia: copy in iron electrotype in one piece, without seams, original in marble by Shoubin in the Imperial Hermitage.

# Passage.

Frames with specimens of water-marked hand and machine-made papers.

# Screen F.

#### Copper and iron electrotypes:

- 1. Michel Angelo: bas-relief, origin unknown.
- 2. Italian shield: engagement with Amazones, original in the Imperial Hermitage.
- 3. Helmet: Italian XVI century, original in the Imperial Hermitage.
- 4. Bourghinotte: XVI century, Neptune and Tritons upon grotesque horses, original in the Imperial Hermitage, found in the grave of Bourbonne.
- 5. Dante Alighieri: bas-relief in wax by Krynsky, collection of the Establishment.

#### Frame IX.

Share-certificates and Bonds by various processes of engraving and printing.

#### Show-case IX.

Photo-micrographs of various materials, used in the manufacture of paper:

Hemp fibre (Cannabis sativa),

Ramine fibre (Urtica utilis seu tenacissima),

Cellulose (Pinus humilus),

Flax fibre (Linum usitatissimum),

Cotton fibre (Gossypium).

#### Frame X.

Share-certificates and Bonds by various processes of engraving and printing.

#### Show-case X.

Orthochromatic photographs: scales of colours in printing ink, taken by white light and through various coloured screens upon colour sensitive collodion emulsion.

#### Frame XI.

Share-certificates and Bonds by various processes of engraving and printing.

#### Show-case XI.

- 1. Drawing in red-chalk by Rubens, photo-gravure from the original in the Imperial Hermitage.
- 2. "Birds", Chromo-lithograph in 14 colours and reproduction of the same by Chromo-collotype in *three* fundamental colours.
- 3.4. Photo-gravure fac-simile impressions, from original
- 5. watercolour drawings in the Imperial Hermitage.
- 7. A herald, original watercolour drawing by Prof. Charlemagne.
- 8. " reproduced by Chromo-collotype in three fundamental colours.

# Screen G.

#### Copper and iron electrotypes:

- 1. Bruni: Rector of the Academy of Fine Arts, basrelief, original in wax by Krynsky, collection of the Establishment.
- 2. Peter the Great, Emperor of Russia: bas-relief, original in wax by Laveretzky, collection of the Establishment.
- 3. Helmet: Italian XVI century, ascribed to Andrew Doria, fac-simile, original in the Imperial Hermitage.
- 4. Rondache: XVI century, an Emperor supported by four kings, fac-simile, original in the Imperial Hermitage.
- 5. Helmet, Italian XVI century, fac-simile, original in the Imperial Hermitage.
- 6. Catherine II, Empress of Russia: bas-relief, original in wax by Laveretzky, collection of the Establishment.
- 7. The Academician M. Jacobi, inventor of the Electrotype process, bas-relief.

#### Frame XII.

- 1. A Monk: watercolour drawing by Lopez: original.
- 2. " " chromo-lithographic reproduction—12 stones.
- 3., , helio-engraving: impression in brown ink.
- 4. " " fac simile impression, in colours from the same plate.

#### Show-case XII.

- 1. Original plate, engraved by various processes.
- 2. Copper electrotype matrix of N = 1.
- 3. Iron electrotype for letterpress printing.
- 4. Steel plate, engraved by hand and machine.

- 5. Design for corner piece engraved by Pantographic machine in three different sizes.
- 6. The same design after etching (intaglio).
- 7. The same design with raised whites i. c. as a matrix.
- 8. Copper electrotype of N = 7 for letterpress printing.
- 9. Transformotype of  $\mathbb{N}$  4 for letterpress printing.

#### Frame XIII.

- 1. Winter scene: original, watercolour drawing by Benois.
- 2. " reproduced by Chromo-xylography.
- 3. " " Chromo-lithography.
- 4. " " " " Chromo-zincography.
- 5. " " " Photo-gravure fac-simile impression.
- 6. " " " Chromo-collotype in three colours.
- 7. Midsummer's-night view of the Saima Lake in Finland, original, watercolour drawing by Benois.
- 8. The same, reproduced by photo-gravure fac-simile impression.

#### Show-case XIII.

- 1. Plate engraved by Afanasieff (scholar of Outkin).
- 2. Ground-tint plate engraved by the Guilloche machine.
- 3. Etching in relief in Zinc.
- 4. Ground-tint plate N 2, transformed for letterpress printing.
- 5. Plate № 1, transformed for letterpress printing.
- 6. Paper matrix, from type.
- 7. Stereotype cast direct in type metal the proper height.
- 8. Iron electrotype.
- 9. Iron electrotype.

#### Frame XIV.

- 1. "The Rendez-vous": original, watercolour drawing by Linder.
- 2. " reproduced in Chromo-lithography 17 stones.
- 3. | Chromo-lithographs of "Ancient Hebrew Manu-
- 4. scripts", in the Imperial Public Library.

### Show-case XIV.

- 1. A study, original watercolour drawing by Wilier.
- 2. " Collotype in red ink.
- 3. " " in yellow ink.
- 4. " " in blue ink.
- 5. " Chromo-collotype in these three colours.

# Screen H.

#### Copper and iron electrotypes:

- 1. Shield of the Grand Duke of Tuscany Cosmos I: fac-simile, original in the Imperial Hermitage.
- 2. Dagger of French origin.
- 3. Sword: Italian XVI century, original in the Imperial Hermitage.
- 4. Sword, from the collection of count Stroganoff.
- 5. Lance: origin unknown.

# Screen 1.

#### Copper and iron electrotypes:

- 1. "Banishment from the Garden of Eden": centre piece of the Milton shield by Maurel Ladeuil.
- 2. Main gauche: Spanish work, original in the Imperial Hermitage.
- 3. Dagger: Italian XVI century.
- 4. Bust of J. N. Niepce: iron electrotype without seams.

- 5. Head of St. Paul the Apostle: haut-relief, original in marble by San Sovino, from the collection of count Stroganoff.
- 6. Shield with a representation of Judith and Holofernes: original in the Imperial Hermitage.

#### Frame XV.

Impressions showing various modes of engraving and details of execution for Bonds, Share-certificates etc.

# Screen K.

Copper and iron electrotypes:

- 1. Shield of Henry II: original in the Imperial Hermitage.
- 2. Alexander II, Emperor of Russia: original in wax by Laveretzky, collection of the Establishment.
- 3. Shield "St. Jacob": original in the Imperial Hermitage.

#### Frame XVI.

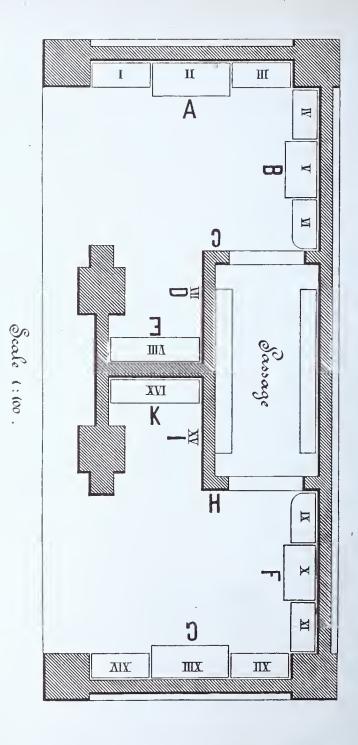
- 1. M. Ostroffsky, Minister of State: dry-point etching by V. Bobroff, from a photograph.
- 2. Alexander II, Emperor of Russia: line engraving by T. Merkin.
- 3. I. Vishnigradsky, Minister of State: dry-point etching by V. Bobroff, from a photograph.
- 4. Professor Jordan, Rector of the Academy of Fine Arts: dry-point etching by V. Bobroff, from a photograph.
- 5. Portrait engraved by G. Frank.
- 6. Reutern, artist: dry-point etching by V. Bobroff.
- 7. Count L. Tolstoi: dry-point etching by G. Frank, from a portrait painted by Repin.
- 8. Professor Kämtz: steel plate engraving by I. Eisenhardt.
- 9. Professor E. Lenz, member of the Imperial Academy of Sciences: steel plate engraving by I. Eisenhardt.
- 10. Samoiloff, tragedian: dry-point etching by V. Bobroff.

#### Show-case XVI.

- 1. Steel punches, Matrices and Types, from same.
- 2. Rosette, Guilloche machine engraving in steel.
- 3. The same, transformed for letterpress printing.
- $\begin{bmatrix} 5. \\ 6. \end{bmatrix}$  Vignettes.
- 7. Engraving on steel.
- 8. The same, transformed for letterpress printing.
- 9a. Portrait in relievo on roller die (matrix).
- 9b. " in intaglio, original die.
- 10. Original steel plate engravings: the Emperors
  Peter the Great, Alexander I and Alexander II
- 11. and the Empress Catherine II.
- 12. Trial plate engraved by indentation from a single "mill" or roller die.
- 13. Roller die or "mill" with designs in relief (matrix for N 12).
- 14. Chemitype engravings.
- 16. Wood engraving and electrotypes from same, transposed right and left for letterpress printing.
- 17. Specimens of letter type.

Bust of the Empress of Russia Marie Feodorovna: iron electrotype in one piece, without seams, original in marble in the Imperial Hermitage.





Price 10 cents.